



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/608,065 | 06/30/2003 | Young Gyu Jung | P23630 | 7818 |
| 7055 | 7590 | 11/05/2004 | EXAMINER | |
| GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191 | | | MCALEENAN, JAMES M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3745 | |

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,065

Applicant(s)

JUNG ET AL.

Examiner

James M McAleenan

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19^{1,2} is/are rejected. *MA*
- 7) ☒ Claim(s) 13-19 is/are objected to. *MA*
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/30/2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Jung et al. (U.S. Patent Number 6,584,799). Jung et al. discloses a cool air circulating blower (20) for a refrigerator (see Col. 5, line 16) that includes a blowing fan (38) connected to a motor (34) via a rotating shaft (see Figures 4-5 and 7 and Col. 5, lines 11-44). Jung et al. discloses a shroud (40) having a central hole formed there through for guiding air-flow, wherein the fan (38) is disposed inside the central hole. Jung et al. discloses air flow guiding means formed around the central hole of the shroud (40) for dispersing air flow leaving the blowing fan (38) in the radial direction of the blowing fan to reduce generation of turbulence (see Figures 4-5 and 7 and Col. 5, lines 30-52). Regarding claim 2, Jung et al. discloses the fan (38) as an axial flow fan (38) having a hub connected to the motor (34) via the rotating shaft. Jung et al. discloses the hub having a front end and a rear end having the same diameter as the front end to guide the air flow in the radial direction of the hub (see Figures 4-5 and 7 and Col. 5, lines 30-43). Jung et al. discloses a plurality of equally spaced blades attached on the outer circumference of the hub for blowing the cool air in the radial direction of the fan (38) (see Figures 4-5 and 7 and Col. 5, lines 30-52). Regarding claim 3, Jung et al. discloses the air flow guide means having an air flow guiding surfaces formed around the central hole and inclined downwardly in the radial direction thereof in case that the shroud (40) is mounted horizontally (see Figures 4-5 and 7 and Col. 6, lines 10-

Art Unit: 3745

34). Regarding claim 4, Jung et al. discloses the shroud (40) having a bell mouth formed in the shape of a circular groove for guiding the flow of the cool air between the central hole and the airflow guiding surface (see Figures 4-5 and 7 and Col. 5, lines 11-44). Regarding claim 5, Jung et al. discloses the shroud (40) having a horizontal portion formed in the shape of a plan, wherein the horizontal portion is connected between the bell mouth and the airflow guiding surface. Regarding claim 6, Jung et al. discloses the air flow guiding surface is formed in the shape of a downwardly inclined concave. Regarding claim 7, Jung et al. discloses the air flow guiding surface is formed in the shape of a downwardly inclined plane. Regarding claim 8, Jung et al. discloses the cool air circulating blower for a refrigerator having a blowing fan for upwardly blowing cool air (see Figures 4-5 and 7 and Col. 5, lines 11-44). Jung et al. discloses a shroud (40) having a central hole formed there through and disposed horizontally for guiding air flow, wherein the fan (38) is disposed inside the central hole of the shroud. Jung et al. discloses a motor mounted below the fan (40) and connected to the fan via a rotating shaft of the motor (34) (see Figures 4-5 and 7 and Col. 6, lines 42-65). Jung et al. discloses draining means formed on the shroud for guiding and draining condensed water obtained by condensation of moisture laden in the cool air and having dropped onto the shroud to places other than the motor. Regarding claim 9, Jung et al. discloses the fan (38) being an axial fan having a hub connected to the motor via the rotating shaft of the motor for transmitting rotating force. Jung et al. discloses the hub having a front and rear end with the same diameter to guide air flow in the radial direction of the hub. Jung et al. discloses a plurality of equally spaced blades attached on the outer circumference of the hub for blowing the cool air in the radial direction of the fan. Regarding claim 10, Jung et al. discloses a motor supporting bracket for fixing the motor to the shroud

Art Unit: 3745

around the central hole that is beneath the shroud. Regarding claim 11, Jung et al. discloses the motor supporting bracket having a main supporting body disposed apart below the central hole for fixing the motor, wherein a plurality of supporting bars are connected between the main supporting body and the edge of the central hole (see Figures 4-5 and 7 and Col. 5, lines 30-52). Regarding claim 12, Jung et al. discloses the shroud having bell mouth formed around the central hole in the shape of a circular groove for guiding the flow of the cool air.

Allowable Subject Matter

2. Claims 13-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Note claims 13 and 14 have the allowable subject matter.

PRIOR ART

3. The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 1 patent.

Kim (U.S. Patent Number 6,511,287) is cited to show similar shroud features as claimed by Applicant's invention.

Art Unit: 3745

CONTACT INFORMATION


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M McAleenan whose telephone number is 703-308-2827. The examiner can normally be reached on M-F 8:30-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 703-308-1044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. McAleenan
Patent Examiner
703-308-2827

 10/27/04


F. DANIEL LOPEZ
PRIMARY EXAMINER